Access DB# 157555

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Charles Richard Examiner #: 80938 Date: 6/27/05
Art Unit: 1712 Phone Number 30 571-272-8502 Serial Number: 10/647,830
Mail Box and Bldg/Room Location: Remsen 10A34 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Shale hydration inhibition agent & method of use

Inventors (please provide full names): Patel, Arvind; Stamatakis, Emanuel; Davis, Eric; Friedheim, Jim.

Earliest Priority Filing Date: 8/25/2003

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Search the structures in the claims attached — the amines in claims 1 & 7 are representative. The main application is oil well drilling/treating/other, including fracturing

****

STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: ES	NA Sequence (#)		STN	
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)		Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed: 7-7-05	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time:	Other		Other (specify)	

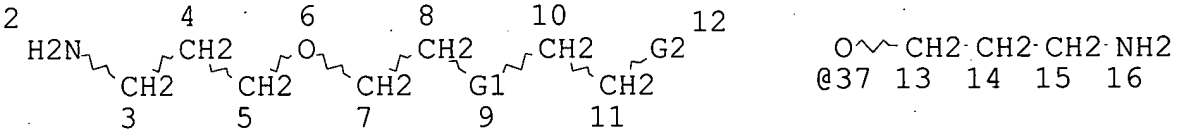
PTO-1590 (8-01)

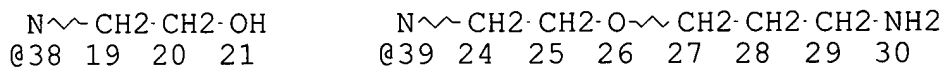
```
=> file reg
FILE 'REGISTRY' ENTERED AT 17:11:51 ON 07 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)


=> d his

     FILE 'LREGISTRY' ENTERED AT 15:19:28 ON 07 JUL 2005
L1             STR

     FILE 'REGISTRY' ENTERED AT 15:31:31 ON 07 JUL 2005
L2             0 S L1
L3             6 S L1 FUL
                 SAV L3 RIC830/A
                 E TRIETHANOLAMINE/CN
L4             1 S E3
                 E DIETHANOLAMINE/CN
L5             1 S E3
                 E ACETONITRILE/CN
L6             1 S E3

     FILE 'CAOLD' ENTERED AT 15:38:28 ON 07 JUL 2005
L7             0 S L3

     FILE 'ZCA' ENTERED AT 15:39:08 ON 07 JUL 2005
L8            12 S L3
L9         32218 S L4 OR TRIETHANOLAMINE# OR TRIETHANOL#(A)AMINE# OR TRI(A
L10        18132 S L5 OR DIETHANOLAMINE# OR DIETHANOL#(A)AMINE# OR DI(A)ET
L11       125292 S L6 OR ACETONITRILE# OR CH3CN OR MECN
L12          482 S (L9 OR L10) AND L11
L13         1888 S L4 (L) RACT/RL
L14         3321 S L5 (L) RACT/RL
L15         5803 S L6 (L) RACT/RL
L16            1 S L13 AND L14 AND L15
L17        33722 S SHALE#
L18       213426 S DRILL? OR BORE# OR BORING# OR BOREING# OR FRACTUR?
L19        14797 S OILWELL? OR OIL#(2A)(WELL OR WELLS) OR DERRICK?

     FILE 'REGISTRY' ENTERED AT 17:02:45 ON 07 JUL 2005
                 E HYDROGEN/CN
L20            1 S E3
                 E RANEY NICKEL/CN
L21            1 S E3
```

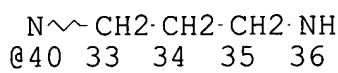
FILE 'ZCA' ENTERED AT 17:03:43 ON 07 JUL 2005
L22 822634 S L20 OR L21 OR HYDROGENA? OR RANEY#
L23 48 S L12 AND L22
L24 0 S L23 AND (L17 OR L18 OR L19)
L25 1 S L12 AND (L17 OR L18 OR L19)
L26 14 S L8 OR L16 OR L25
L27 48 S L23 NOT L26

FILE 'REGISTRY' ENTERED AT 17:11:51 ON 07 JUL 2005

=> d l3 que stat
L1 STR







VAR G1=NH/38/39/40
VAR G2=OH/37
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE
L3 6 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 68559 ITERATIONS 6 ANSWERS
SEARCH TIME: 00.00.01

=> file zca

FILE 'ZCA' ENTERED AT 17:12:26 ON 07 JUL 2005

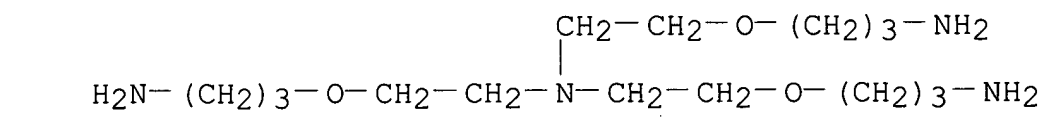
=> d l26 1-14 cbib abs hitstr hitind

L26 ANSWER 1 OF 14 ZCA COPYRIGHT 2005 ACS on STN
142:282555 Shale hydration inhibition agent and method of use. Patel, Arvind D.; Stamatakis, Emanuel; Davis, Eric; Friedheim, Jim (M I LLC, USA). U.S. Pat. Appl. Publ. US 2005049150 A1 20050303, 15 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-647830 20030825.

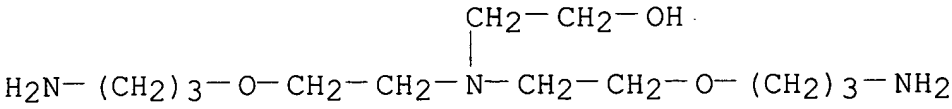
AB A water-base fluid for use in drilling, cementing, workover, fracturing and abandonment of subterranean wells through a formation contg. a shale which swells in the presence of water. In one illustrative embodiment, the drilling fluid includes, an aq. based continuous phase, a weighting agent, and a shale hydration inhibition agent. The shale hydration inhibition agent should have the general formula: 1 in which A is independently selected from H and CH 2 CH 2 CH 2 NH 2 ; and in which B is independently selected from H, CH 2 CH 2 OH, CH 2 CH 2 OCH 2 CH 2 CH 2 NH 2 and CH 2 CH 2 CH 2 NH 2. The shale hydration inhibition agent is present in sufficient concn. to substantially reduce the swelling of shale drilling cuttings upon contact with the drilling fluid. The drilling fluid may be formulated to include a wide variety of components of aq. based drilling fluids, such as weighting agents, fluid loss control agents, suspending agents, viscosifying agents, rheol. control agents, as well as other compds. and materials known to one of skill in the art. The fluids may also be used in the disposal by reinjection of drilling cutting into a selected subterranean disposal formation.

IT **61579-07-5**, RMR 13-21A **61579-10-0** **73947-23-6 847238-40-8 847257-78-7**, RMR 13-21B
(shale hydration inhibition agent and method of use)

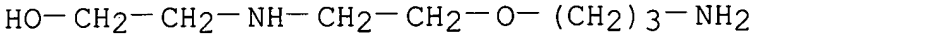
RN 61579-07-5 ZCA
CN 1-Propanamine, 3,3',3''-[nitrilotris(2,1-ethanediyloxy)]tris- (9CI) (CA INDEX NAME)



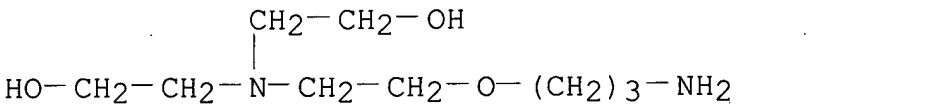
RN 61579-10-0 ZCA
CN Ethanol, 2-[bis[2-(3-aminopropoxy)ethyl]amino]- (9CI) (CA INDEX NAME)



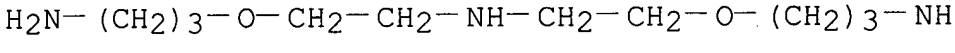
RN 73947-23-6 ZCA
CN Ethanol, 2-[[2-(3-aminopropoxy)ethyl]amino]- (9CI) (CA INDEX NAME)



RN 847238-40-8 ZCA
CN Ethanol, 2,2'-[[2-(3-aminopropoxy)ethyl]imino]bis- (9CI) (CA INDEX NAME)



RN 847257-78-7 ZCA
CN 1-Propanamine, 3,3'-[iminobis(2,1-ethanediyloxy)]bis- (9CI) (CA INDEX NAME)



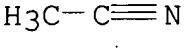
IC ICM C09K007-02
INCL 507136000
CC 51-2 (Fossil Fuels, Derivatives, and Related Products)
IT 102-71-6D, Triethanolamine, mono, di, and triethers with propanolamine, uses 111-42-2D, Diethanolamine, reaction products with acrylonitrile, hydrogenated 471-34-1, Calcium carbonate, uses 1317-60-8, Hematite, uses 1332-37-2, Iron oxide, uses 11138-66-2, DuoVis 13397-26-7, Calcite (Ca(CO3)), uses 13462-86-7, Barite **61579-07-5**, RMR 13-21A
61579-10-0 73947-23-6 130392-39-1, Rev-Dust
847238-40-8 847256-75-1, UltraFree 847257-76-5, PolyPac
847257-78-7, RMR 13-21B
(shale hydration inhibition agent and method of use)

L26 ANSWER 2 OF 14 ZCA COPYRIGHT 2005 ACS on STN
103:115382 Chemiluminescence vs. Kjeldahl determination of nitrogen in oil **shale** retort waters and organonitrogen compounds.
Jones, Bonnie M.; Daughton, Christian G. (Lawrence Berkeley Lab., Univ. California, Berkeley, CA, 94720, USA). Analytical Chemistry, 57(12), 2320-5 (English) 1985. CODEN: ANCHAM. ISSN: 0003-2700.

AB The applicability of combustion/chemiluminescent N detn. to detg. N in oil **shale** wastewaters and various representative chem. classes was demonstrated. Only azoxy compds. and those contg. the pyrazole nucleus were not amenable to anal. The majority of 56 compds. tested yielded 90-110% of their theor. N content; enhanced recovery was found for N oxide salts. For 12 oil **shale** wastewaters, combustion/chemiluminescence gave total N values (1100-28,800 mg/L) that did not differ statistically ($P > 0.10$) from those obtained by the time-consuming wet-chem. Kjeldahl method. The relative std. deviations for 10 replicates of each wastewater were less than 3.5%. No matrix or solvent effects were found.

IT **75-05-8**, analysis **111-42-2**, analysis
(nitrogen detn. in, by combustion and chemiluminescence)

RN 75-05-8 ZCA
CN Acetonitrile (8CI, 9CI) (CA INDEX NAME)



RN 111-42-2 ZCA
CN Ethanol, 2,2'-iminobis- (9CI) (CA INDEX NAME)

CC 80-6 (Organic Analytical Chemistry)
Section cross-reference(s): 61

ST nitrogen detn org chemiluminescence; wastewater analysis nitrogen chemiluminescence; oil **shale** wastewater analysis nitrogen

IT Oil **shale**
(pyrolysis of, nitrogen detn. in retort wastewaters from, comparison of chemiluminescence and Kjeldahl methods for)

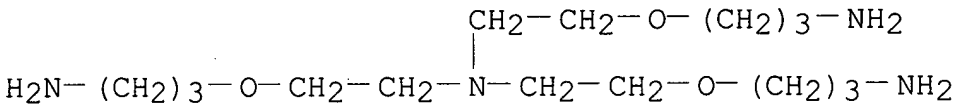
IT 7727-37-9, analysis
(detn. of, in oil **shale** retort wastewaters and org. compds., comparison of chemiluminescence and Kjeldahl methods for)

IT 7732-18-5, analysis
(nitrogen detn. in waste-, from oil **shale** retorts, comparison of chemiluminescence and Kjeldahl methods for)

IT 51-17-2 56-40-6, analysis 57-13-6, analysis 59-67-6, analysis 60-00-4, analysis 67-51-6 68-12-2, analysis **75-05-8**, analysis 83-07-8 86-74-8 88-75-5 91-22-5, analysis 96-54-8 100-02-7, analysis 100-71-0 104-90-5 108-47-4 108-48-5 108-75-8 108-80-5 108-89-4 108-99-6 109-00-2 109-05-7 109-06-8 109-08-0 110-85-0, analysis 110-86-1, analysis 110-89-4, analysis **111-42-2**, analysis 119-65-3 120-72-9, analysis 142-08-5 271-44-3 288-13-1 288-32-4, analysis 289-80-5 290-37-9 529-21-5 536-75-4 536-78-7

554-84-7 613-50-3 622-39-9 872-50-4, analysis 931-20-4
934-48-5 1462-84-6 1484-12-4 1562-94-3 3279-76-3 5144-11-6
7757-79-1, analysis 7758-09-0 20815-29-6 27464-82-0
56430-08-1
(nitrogen detn. in, by combustion and chemiluminescence)

L26 ANSWER 3 OF 14 ZCA COPYRIGHT 2005 ACS on STN
100:142007 Metallic dispersant-detergent additive of high alkalinity for lubricating oils. Le Coent, Jean Louis; Demoures, Bernard (Societe Orogil, Fr.). Fr. Demande FR 2529225 A1 19831230, 14 pp. (French). CODEN: FRXXBL. APPLICATION: FR 1982-11059 19820624.
AB The prepn. of the title compds. involved the following: (1) carbonation of Mg alkanesulfonate-sulfurized Ca alkylphenoxide-MgO-water-glycol-amine-oil mixt., (2) removal of glycol and water, (3) filtration. Thus, an effective, oil-sol. dispersant-detergent was prepd. as above starting with sulfonic acid, mol. wt. 470, and dodelcylphenol; the amine was either ethylenediamine [107-15-3] or tris(6-amino-3-oxahexyl)amine [**61579-07-5**].
IT **61579-07-5**
(adjuncts, in carbonation of overbased calcium alkylphenoxides and magnesium alkylsulfonates)
RN 61579-07-5 ZCA
CN 1-Propanamine, 3,3',3''-[nitrilotris(2,1-ethanediyloxy)]tris- (9CI) (CA INDEX NAME)



IC C10M001-38
CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
IT **61579-07-5**
(adjuncts, in carbonation of overbased calcium alkylphenoxides and magnesium alkylsulfonates)

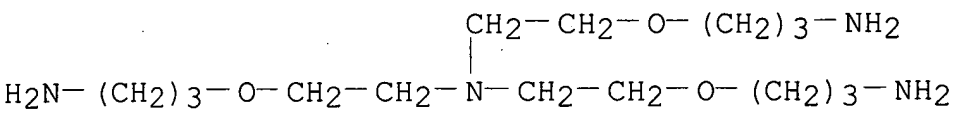
L26 ANSWER 4 OF 14 ZCA COPYRIGHT 2005 ACS on STN
100:142006 Overbased detergent-dispersant additive for lubricating oils. Le Coent, Jean Louis; Demoures, Bernard (Societe Orogil, Fr.). Fr. Demande FR 2529224 A1 19831230, 14 pp. (French). CODEN: FRXXBL. APPLICATION: FR 1982-11058 19820624.
AB The prepn. of carbonated-sulfurized Ca alkylphenoxides was carried out by the following steps: (1) carbonation of Mg alkylbenzenesulfonate-sulfurized alkylphenol-MgO-glycol-amine mixt. in a diluent oil (2) neutralization with lime, (3) 2nd carbonation, (4) solvent removal by distn., and (5) filtration. Thus, dodecylphenol [27193-86-8] was converted to sulfurized Mg dodecylphenoxide and treated as outlined above (the amine was

ethylenediamine [107-15-3]) to give an effective, oil-sol. detergent-dispersant for lubricating oils.

IT **61579-07-5**
(adjuncts, for prepn. of carbonated-sulfurized overbased phenoxides)

RN 61579-07-5 ZCA

CN 1-Propanamine, 3,3',3''-[nitrilotris(2,1-ethanediyloxy)]tris- (9CI) (CA INDEX NAME)



IC C10M001-38

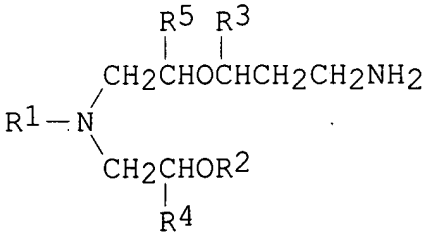
CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

IT 107-15-3, uses and miscellaneous **61579-07-5**
(adjuncts, for prepn. of carbonated-sulfurized overbased phenoxides)

L26 ANSWER 5 OF 14 ZCA COPYRIGHT 2005 ACS on STN

98:180416 Epoxy resin compositions. Kluger, Edward W. (Milliken Research Corp., USA). U.S. US 4352920 A 19821005, 5 pp. (English). CODEN: USXXAM. APPLICATION: US 1981-230719 19810202.

GI



I

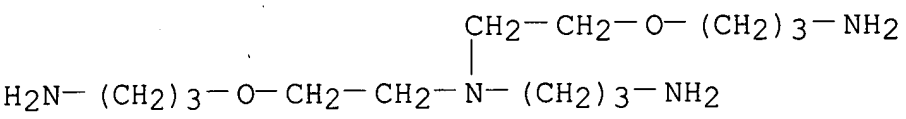
AB Polyamines (I; R',R2 = H, C(R3)HCH2CH2NH2; R3, R4, R5 = C1-6 alkyl) prepd. by cyanoalkylation of dialkanolamines and redn. of the resulting aminonitriles are effective curing agents for epoxy resins in compns. contg. 15-50 parts I per 100 parts resin. Thus, bis(2-cyanoethoxy)-N-(2-cyanoethyl)diethanolamine [85438-88-6] was reduced with H over Ru or alumina in the presence of NH3 at 125-130.degree./1600-1700 psi to give bis(2-aminopropoxy)-N-(2-aminopropyl)diethanolamine [**76461-16-0**], 21.4 parts of which were combined with 10 parts epoxy resin based on bisphenol A diglycidyl ether, poured into a mold and cured 2 h at 80.degree. and 2 h at 150.degree.. The crosslinked product had glass transition

temp. 100.3.degree..

IT **76461-16-0**
(crosslinking agents, for epoxy resins)

RN 76461-16-0 ZCA

CN 1,3-Propanediamine, N,N-bis[2-(3-aminopropoxy)ethyl]- (9CI) (CA INDEX NAME)



IC C08G059-50; C08G059-64

INCL 528111000

CC 37-6 (Plastics Manufacture and Processing)

IT **76461-16-0**
(crosslinking agents, for epoxy resins)

L26 ANSWER 6 OF 14 ZCA COPYRIGHT 2005 ACS on STN

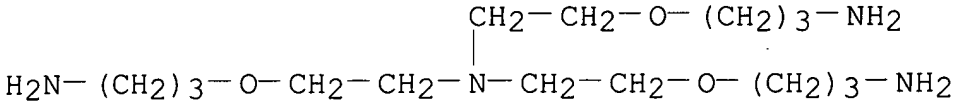
95:170776 Improving the compatibility of plasticizers and fillers in polymers. Machurat, Jean; Morawski, Jean Claude; Soula, Gerard (Rhone-Poulenc Industries S. A., Fr.). Eur. Pat. Appl. EP 32076 19810715, 36 pp. (French). CODEN: EPXXDW. APPLICATION: EP 1980-401751 19801208.

AB Alkenylsuccinimides [e.g., polyisobutenyl- or tetrapropenylsuccinimide (I)], prepd. by the reaction of alkenylsuccinic anhydrides with [H2N(CH2)3OCH2CH2]3N, [H2N(CH2)3OCH2]2, (H2NCH2)2, p-(H2N)2C6H4, [H2N(CH2)6]2NH, or H2N(CH2CH2NH)4H (II), improve the compatibility of hydrocarbon oils, DOP [117-81-7], and other plasticizers with fillers such as SiO2, Na aluminosilicate, kaolin, or chalk in the prepn. of filled, plasticized rubbers. Thus, I was prepd. by heating 665 g tetrapropenylsuccinic anhydride to 130.degree. in the presence of Br, adding 189 g II during 30 min, and heating the mixt. to 160.degree./25 mm. A mixt. of 100 g SiO2 and .apprx.400 mL arom. hydrocarbon oil (Dutrex 729 FC) contg. 1% I flowed on a surface angled at 45.degree.. Without I, .apprx.600 mL oil was required to give a flowable mixt. The addn. of 0.6 part I to a compn. contg. SBR 60, butadiene rubber 40, SiO2 60, and Dutrex 729 FC 20 parts decreased the viscosity of the compn. and increased the modulus and decreased the permanent deformation of vulcanizates.

IT **61579-07-5D**, reaction products with alkenylsuccinic anhydrides
(plasticizers contg., for compatibility of fillers with rubber compns.)

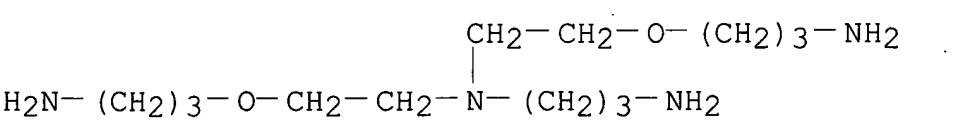
RN 61579-07-5 ZCA

CN 1-Propanamine, 3,3',3''-[nitrilotris(2,1-ethanediyloxy)]tris- (9CI) (CA INDEX NAME)



IC C08L021-00; C08K005-00
CC 38-9 (Elastomers, Including Natural Rubber)
IT 106-50-3D, reaction products with alkenylsuccinic anhydrides
107-15-3D, reaction products with alkenylsuccinic anhydrides
108-30-5D, alkenyl derivs., reaction products with polyamines
112-57-2D, reaction products with alkenylsuccinic anhydrides
123-56-8D, alkenyl and amino derivs. 143-23-7D, reaction products with alkenylsuccinic anhydrides 2997-01-5D, reaction products with alkenylsuccinic anhydrides **61579-07-5D**, reaction products with alkenylsuccinic anhydrides
(plasticizers contg., for compatibility of fillers with rubber compns.)

L26 ANSWER 7 OF 14 ZCA COPYRIGHT 2005 ACS on STN
94:66480 Light-stable polyurethanes for integral foams and elastomers. Horacek, Heinrich; Volkert, Otto (Kunststofflab., Badischen Anilin und Sodafabrik A.-G., Ludwigshafen am Rhein, D-6700, Fed. Rep. Ger.). Angewandte Makromolekulare Chemie, 90, 109-42 (German) 1980. CODEN: ANMCBO. ISSN: 0003-3146.
AB The photodegrdn. of polyurethanes prepd. from arom. polyisocyanates can be prevented by coating or lining them with films, but these methods are expensive. The use of lightfast, aliph. polyisocyanates gives trouble, particularly in reaction-injection molding, owing to their relatively low reactivity. Polyamide catalysts were developed which increased the rate of polymn. of aliph. polyisocyanates to the required levels, enabling the prepn. of polyurethanes equiv. in properties to those from arom. polyisocyanates, and with satisfactory lightfastness. These polymers are potentially useful in flexible and rigid integral-skin foam, reaction-injection molding of elastomers for the automotive industry, and in-mold coating.
IT **76461-16-0**
(catalysts, for polyurethane prepn. from aliph. polyisocyanates)
RN 76461-16-0 ZCA
CN 1,3-Propanediamine, N,N-bis[2-(3-aminopropoxy)ethyl]- (9CI) (CA INDEX NAME)



CC 36-3 (Plastics Manufacture and Processing)

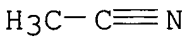
IT 6864-37-5 9002-98-6 39423-51-3 72088-96-1 76461-15-9
76461-16-0
(catalysts, for polyurethane prepn. from aliph. polyisocyanates)

L26 ANSWER 8 OF 14 ZCA COPYRIGHT 2005 ACS on STN
94:35075 Action of nitrogen compounds on aluminum. Yoshimura, Chozo; Ogura, Toshiaki (Coll. Sci. Eng., Kinki Univ., Osaka, Japan). Aruminyumu Kenkyu Kaishi, 146, 55-6 (Japanese) 1980. CODEN: AKKADN. ISSN: 0285-5224.

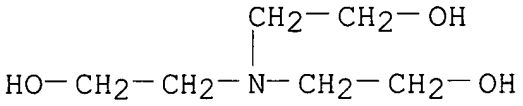
AB The wt. change and elec. potential change of Al in HCONMe2 [68-12-2], pyridine [110-86-1], ethanolamine [141-43-5], diethanolamine [111-42-2], triethanolamine [102-71-6], aniline [62-53-3], nitrobenzene [98-95-3], and acetontrile [75-05-8] were studied. Generally, the action of amphoteric solvents was stronger than that of nonprotonic solvents.

IT **75-05-8**, reactions **102-71-6**, reactions **111-42-2**, reactions
(corrosion by, of aluminum)

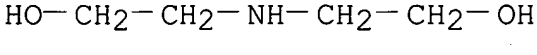
RN 75-05-8 ZCA
CN Acetonitrile (8CI, 9CI) (CA INDEX NAME)



RN 102-71-6 ZCA
CN Ethanol, 2,2',2''-nitrilotris- (9CI) (CA INDEX NAME)



RN 111-42-2 ZCA
CN Ethanol, 2,2'-iminobis- (9CI) (CA INDEX NAME)



CC 56-8 (Nonferrous Metals and Alloys)

IT 62-53-3, reactions 68-12-2, reactions **75-05-8**, reactions 98-95-3, reactions **102-71-6**, reactions 110-86-1, reactions **111-42-2**, reactions 141-43-5, reactions
(corrosion by, of aluminum)

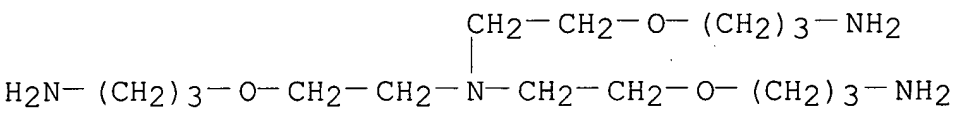
L26 ANSWER 9 OF 14 ZCA COPYRIGHT 2005 ACS on STN
94:30184 .gamma.-Aminopropoxy compounds. Polievka, Milan; Balak, Jiri; Macho, Vendelin (Czech.). Czech. CS 181846 19800215, 6 pp. (Slovak). CODEN: CZXXA9. APPLICATION: CS 1974-1226 19740220.

AB The title compds. were prepd. by cyanoethylation of polyalcs. and catalytic hydrogenation of the products. Thus, a mixt. of 590 g polyethylene glycol (mol. wt. 600), 600 mL water, and 2 g NaOH was treated at 30.degree. with 2 mols CH2:CHCN 4 h and the product was hydrogenated over Raney Ni to yield 680 g of wax-like .alpha.-w-diaminopolyethylene glycol (mol. wt. 693).

IT **61579-07-5P**
(prepn. of)

RN 61579-07-5 ZCA

CN 1-Propanamine, 3,3',3''-[nitrilotris(2,1-ethanediyloxy)]tris- (9CI) (CA INDEX NAME)



IC C07C091-02

CC 23-9 (Aliphatic Compounds)
Section cross-reference(s): 35

IT 5045-94-3P 16499-88-0P 16728-59-9P 24991-53-5P
61579-07-5P 62035-48-7P 76126-99-3P
(prepn. of)

L26 ANSWER 10 OF 14 ZCA COPYRIGHT 2005 ACS on STN

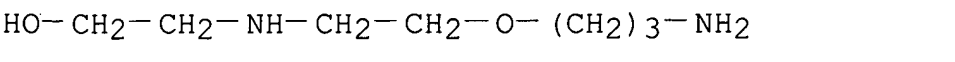
93:28184 Surfactants containing fluoroalkyl groups. Hayashi, Takao; Ohtoshi, Yukio (Asahi Glass Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 55007818 19800121 Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1978-78720 19780630.

AB RCONR1ZOZ1NR2Z2CO2R3 (R = C1-20 fluoroalkyl; R1 = H, alkyl; R2 = alkyl, hydroxyalkyl; R3 = H, NH4, alkali metal, Z,Z1 = C1-10 alkylene; Z2 = C1-5 alkylene) were prepd., had low crit. micelle concn. and showed high surface activity at low concn. Thus, C9F19CO2CHMe2 (I) [71356-37-1] in Me2CHOH was treated with H2N(CH2)3OCH2CH2NHCH2CH2OH [**73947-23-6**] at 70.degree. for 20 h to give >98% C9F19CONH(CH2)3OCH2CH2NHCH2CH2CO2H [73947-24-7] which was then treated with ClCH2CO2H [79-11-8] in Me2CHOH to give C9F19CONH(CH2)3OCH2CH2N(CH2CHOH)CH2CO2H (II) [73947-25-8] in 85% yield based on I. A 0.1(0.001)% aq. II had surface tension 16.4(18.4) dynes/cm, compared with 17.0(31.7) for C9F19CONH(CH2)3N+Me2CH2CO2-.

IT **73947-23-6**
(reaction of, with perfluorodecanoic acid ester)

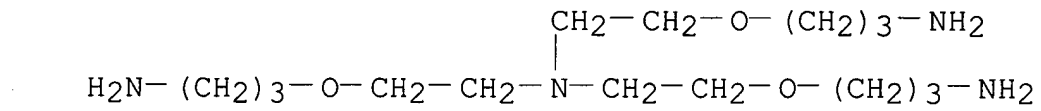
RN 73947-23-6 ZCA

CN Ethanol, 2-[[2-(3-aminopropoxy)ethyl]amino]- (9CI) (CA INDEX NAME)



IC C11D001-10; C07C103-38
CC 46-3 (Surface Active Agents and Detergents)
IT **73947-23-6**
(reaction of, with perfluorodecanoic acid ester)

L26 ANSWER 11 OF 14 ZCA COPYRIGHT 2005 ACS on STN
91:125917 Alkenylamines useful as additives for lubricating oils and fuels. Soula, Gerard (Orogil S. A., Fr.). Fr. Demande FR 2381067 19780915, 14 pp. (French). CODEN: FRXXBL. APPLICATION: FR 1977-5006 19770222.
AB Fuel and lubricating oils having detergent and dispersant properties contain .apprx.50 mmol alkenylamine/kg oil. The alkenylamine is prepd. by treating (HOCHR1CH)nN(CH2CHR2CH2NH2)3-(m+n)(CH2CHR1OCH2CHR2CH2NH2)n (R1 and R2 = H or Me; C1-4 alkyl, or Ph; m = 1-3; n = 0-2) with a brominated or chlorinated polyisobutylene (mol. wt. 600-4200; 1-1.5 g-atom halogen/mol halogenated polyisobutylene) at 130-80.degree. and amine-halogenated polyisobutylene mol ratio 0.25-2:1. Thus, an amine was prepd. by heating brominated polyisobutylene (1 mol; 2.5 wt.% Br; mol. wt. 3400), tris(6-amino-3-oxahexyl)amine [**61579-07-5**] (1.8 mol), and octanol to 160.degree. for 15 h, cooling to 90.degree., adding 10% aq. NaOH, and refluxing the mixt. for 1 h. SAE 30 oil (20 g; contg. 5 g engine sludge including 2% carbonaceous material) was tested for antifoam, antirust, and dispersant properties in the presence of the amine, Ca alkylbenzenesulfonate, overbased Ca alkylphenate, and Zn dihexyl phosphorodithioate [7282-28-2].
IT **61579-07-5D**, reaction products with halogenated polyisobutylene
(detergents-dispersants, for fuels and lubricating oils)
RN 61579-07-5 ZCA
CN 1-Propanamine, 3,3',3''-[nitrilotris(2,1-ethanediyloxy)]tris- (9CI) (CA INDEX NAME)



IC C08F008-32; C08F008-18; C08F010-00; C10L001-22
CC 51-7 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 37
IT 9003-27-4D, halogenated, reaction products with amines
61579-07-5D, reaction products with halogenated polyisobutylene
(detergents-dispersants, for fuels and lubricating oils)

L26 ANSWER 12 OF 14 ZCA COPYRIGHT 2005 ACS on STN

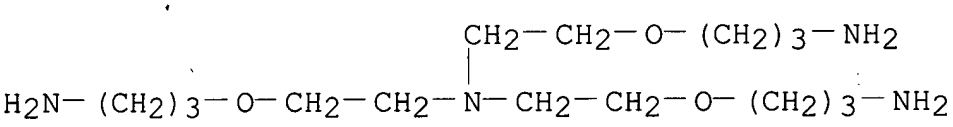
90:25861 Additive for lubricants and fuels. Soula, Gerard (Societe Orogil, Fr.). Ger. Offen. DE 2806908 19780824, 17 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1978-2806908 19780217.

AB High-mol.-wt. alkenylamines, prepd. by treating a polyamine (a hydrogenated cyanoethylated alkanolamine) and a halogenated polyolefin were detergent-dispersant additives with anticorrosion and antisludge properties. Thus, 0.2 mol chlorinated poly(isobutylene) and 0.67 mol tris(6-amino-3-oxahexyl)amine reacted in the presence of Na2CO3 to form a viscous product with 1.5% N and 0.5% residual Cl. When tested at 50 mmol/kg SAE 30 oil it showed better dispersion, antirust, and antisludge properties than a com. additive prepd. from tetraethylenepentamine and chlorinated poly(isobutylene).

IT **61579-07-5D**, polyisobutenyl derivs.
(lubricating oil detergents)

RN 61579-07-5 ZCA

CN 1-Propanamine, 3,3',3''-[nitrilotris(2,1-ethanediyloxy)]tris- (9CI) (CA INDEX NAME)



IC C07C093-02

CC 51-7 (Fossil Fuels, Derivatives, and Related Products)

IT **61579-07-5D**, polyisobutenyl derivs.
(lubricating oil detergents)

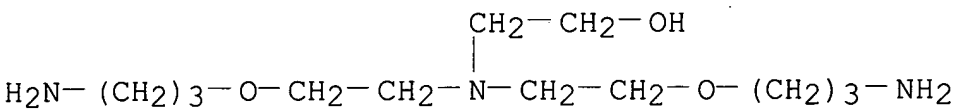
L26 ANSWER 13 OF 14 ZCA COPYRIGHT 2005 ACS on STN

87:104344 Lubricant additives comprising alkenylsuccinic acid imides. Soula, Gerard; Duteurtre, Philippe (Societe Orogil, Fr.). Ger. Offen. DE 2616751 19761028, 32 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1976-2616751 19760415.

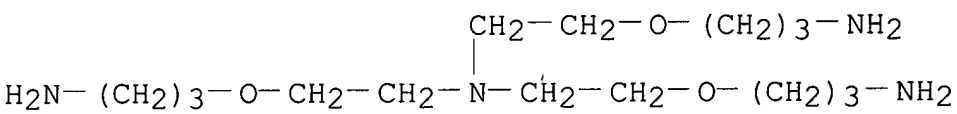
AB Alkenylsuccinimide derivs. of ether-contg. polyamines are useful as lubricant additives. Thus, adding 58 g N(CH2CH2OCH2CH2CH2NH2)3 [**61579-07-5**] (prepd. by cyanoethylation of triethanolamine [102-71-6] and hydrogenation) over 1 h to 900 g (polyisobutenyl)succinic anhydride (acid no. 74 mg KOH/g, prepd. from polyisobutylene with mol. wt. 1000) stirred at 120.degree. and stirring 3 h at 160.degree. and 50 mm gives a clear triimide (I) contg. 1.06% N. Motor testing of SAE 30 motor oil contg. I 50, Ca alkylbenzenesulfonate 30, overbased Ca alkylphenoxide 30, and Zn dihexyl dithiophosphate [7282-28-2] 15 mmol/kg gives dispersion rating 470, corrosion protection rating 16, and antifoam rating 10-05, compared with 400, 12, and 580-450, resp., with (polyisobutenyl)succinimide from triethylenetetramine in place of I.

IT **61579-10-0P**

(manuf. and reaction of with polyisobutenylsuccinic anhydride)
RN 61579-10-0 ZCA
CN Ethanol, 2-[bis[2-(3-aminopropoxy)ethyl]amino]- (9CI) (CA INDEX NAME)

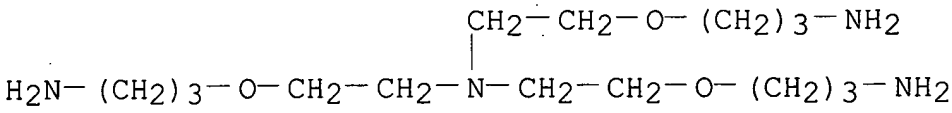


IT **61579-07-5P**
(manuf. and reaction of, with polyisobutenylsuccinic anhydride)
RN 61579-07-5 ZCA
CN 1-Propanamine, 3,3',3''-[nitrilotris(2,1-ethanediyloxy)]tris- (9CI) (CA INDEX NAME)

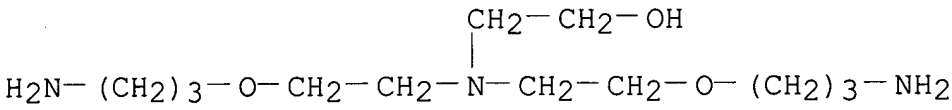


IC C10M001-36
CC 51-7 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 27
IT **61579-10-0P**
(manuf. and reaction of with polyisobutenylsuccinic anhydride)
IT **61579-07-5P** 61579-09-7P 61642-85-1P
(manuf. and reaction of, with polyisobutenylsuccinic anhydride)

L26 ANSWER 14 OF 14 ZCA COPYRIGHT 2005 ACS on STN
86:43167 Polyamines containing ether groups. Collet, Paul (Rhone-Poulenc S. A., Fr.). Ger. Offen. DE 2616750 19761028, 18 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1976-2616750 19760415.
AB H2N(CH2)3O(CH2)2NRR1 [I; R = Et, H2N(CH2)3O(CH2)2, HOCH2CH2; R1 = H2N(CH2)3O(CH2)2, HOCH2CH2] were prepd. by the cyanoethylation of a hydroxyethyl amine, followed by redn. of the intermediate nitrile. Thus, (HOCH2CH2)3N reacted with acrylonitrile in NaOH at 36.degree. to give N(CH2CH2OCH2CH2CN)3, which was hydrogenated over Raney Ni to I [R = R1 = H2N(CH2)3O(CH2)2].
IT **61579-07-5P 61579-10-0P**
(prepn. of)
RN 61579-07-5 ZCA
CN 1-Propanamine, 3,3',3''-[nitrilotris(2,1-ethanediyloxy)]tris- (9CI) (CA INDEX NAME)



RN 61579-10-0 ZCA
CN Ethanol, 2-[bis[2-(3-aminopropoxy)ethyl]amino]- (9CI) (CA INDEX NAME)



IC C07C093-04
CC 23-4 (Aliphatic Compounds)
IT **61579-07-5P** 61579-09-7P **61579-10-0P**
61642-85-1P
(prepn. of)

=> d l27 1-48 ti

L27 ANSWER 1 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Transition metal-carbide and nitride containing catalysts , their preparation, and use as oxidation and dehydrogenation catalysts

L27 ANSWER 2 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI An investigation of alternative catalytic approaches for the direct synthesis of hydrogen peroxide from hydrogen and oxygen

L27 ANSWER 3 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Populations at risk

L27 ANSWER 4 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Preparation of aminophenol derivatives and their use in coloring agents

L27 ANSWER 5 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Ferrous Ions as Catalysts for Photochemical Reduction of CO2 in Homogeneous Solutions

L27 ANSWER 6 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Combustion chemistry of HAN, TEAN, and XM46

L27 ANSWER 7 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Increased cytotoxic sensitivity of cultured FHM fish cells by

simultaneous treatment with sodium dodecyl sulfate and buthionine sulfoximine

L27 ANSWER 8 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Fate coefficients for the toxicity assessment of air pollutants

L27 ANSWER 9 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Crystalline metal-organic microporous materials

L27 ANSWER 10 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Salt-blend dissociation for manufacture of coated hard powders for sintered carbide alloys or metal composite materials

L27 ANSWER 11 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Methodical analysis of protein-nitrocellulose interactions to design a refined digestion protocol

L27 ANSWER 12 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Semiconductor photocatalysis. ZnS-nanocrystallite-catalyzed photooxidation of organic compounds

L27 ANSWER 13 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Federal facility compliance demonstration with state air toxics regulations

L27 ANSWER 14 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI French limiting values for occupational exposure to chemicals

L27 ANSWER 15 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Effect of the cationic surfactants on the spectrophysical and catalytic characteristics of tetrabromothiofluorescein

L27 ANSWER 16 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Process for removal of trace polar contaminants from light olefin streams

L27 ANSWER 17 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Vanadium(V)-protein model studies: solid-state and solution structure

L27 ANSWER 18 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Efficient and selective electron mediation of cobalt complexes with cyclam and related macrocycles in the p-terphenyl-catalyzed photoreduction of carbon dioxide

L27 ANSWER 19 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Air contaminants

L27 ANSWER 20 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI 4,4'-Bis(dimethylamino)benzophenone (Michler's ketone) - a common indicator for the determination of the acidity and dipolarity/polarizability of reaction media

L27 ANSWER 21 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI process for the preparation of [bis[2-(alkylcarbamoyl)ethyl]amino] **acetonitrile** derivatives and their use for the preparation of antiarrhythmic N,N-bis[2-[(alkylcarbamoyl)oxy]ethyl]-1,2-ethanediamines

L27 ANSWER 22 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Enhanced p-terphenyl-catalyzed photoreduction of carbon dioxide to carbon monoxide through the mediation of a cobalt(III)-cyclam complex

L27 ANSWER 23 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Correlation of the neutral red uptake inhibition assay of cultured fathead minnow fish cells with fish lethality tests

L27 ANSWER 24 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Kinetic and electron paramagnetic resonance studies of photochemical reactions of gas mixtures of methane, ammonia and water

L27 ANSWER 25 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Kinetic and electron paramagnetic resonance studies of photochemical reactions of gas mixtures of methane, ammonia and water

L27 ANSWER 26 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Remarkable solvent effects on the photocatalytic behavior of [fac-Re(bpy)(CO)3Br] (bpy = 2,2'-bipyridine). Selective hydrogen evolution in ether solvents in the presence of triethylamine

L27 ANSWER 27 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Air contaminants

L27 ANSWER 28 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Toxic air pollutant emission factors - a compilation for selected air toxic compounds and sources

L27 ANSWER 29 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Advanced chemical fixation of organic and inorganic content wastes

L27 ANSWER 30 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Toxic air pollutant/source crosswalk - a screening tool for locating possible sources emitting toxic air pollutants

L27 ANSWER 31 OF 48 ZCA COPYRIGHT 2005 ACS on STN

TI Photo- and electrochemical reduction of carbon dioxide

L27 ANSWER 32 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Steric effects on the solution chemistry of nickel(II) complexes with N-monomethylated 14-membered tetraaza macrocycles. The blue-to-yellow conversion and the oxidation and reduction behavior

L27 ANSWER 33 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Electroplating in nonaqueous baths

L27 ANSWER 34 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Enhanced photoredox chemistry in quantized semiconductor colloids

L27 ANSWER 35 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Homogeneous catalysis of the photoreduction of water. 6. Mediation by polypyridine complexes of ruthenium(II) and cobalt(II) in alkaline media

L27 ANSWER 36 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Electron transfer from .alpha.-aminoalkyl radicals to methylviologen

L27 ANSWER 37 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Chemical oxidizability of organic components in water

L27 ANSWER 38 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Photochemical hydrogen manufacture

L27 ANSWER 39 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Tylosin derivatives and their pharmaceutical compositions

L27 ANSWER 40 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Results of toxic action of water pollutants on Daphnia magna Straus tested by an improved standardized procedure

L27 ANSWER 41 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Photochemical generation of carbon monoxide and hydrogen by reduction of carbon dioxide and water under visible light irradiation [artificial photosynthesis/solar-energy conversion/metal complex catalysis/tris(2,2'-bipyridine)ruthenium(II)/cobalt(II) system]

L27 ANSWER 42 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Ethanol from methanol, carbon monoxide and hydrogen

L27 ANSWER 43 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI 3-Amino-1-adamantylpenicillin

L27 ANSWER 44 OF 48 ZCA COPYRIGHT 2005 ACS on STN

TI 16-Substituted androstanes and androstenes

L27 ANSWER 45 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Dihydrofusidic acid

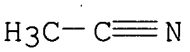
L27 ANSWER 46 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Studies on thiophene. XII

L27 ANSWER 47 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Synthesis of thyroxine and related compounds. XVII.Preparation of some additional compounds related to thyroxine

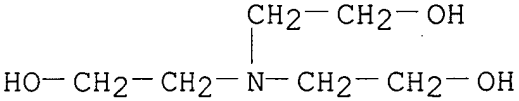
L27 ANSWER 48 OF 48 ZCA COPYRIGHT 2005 ACS on STN
TI Reserpine analogs. II. .beta.-Phenylethylamine derivatives

=> d l27 33 cbib abs hitstr hitrn

L27 ANSWER 33 OF 48 ZCA COPYRIGHT 2005 ACS on STN
105:31929 Electroplating in nonaqueous baths. Kurosawa, Fumio (Nippon Steel Corp., Japan). Jpn. Kokai Tokkyo Koho JP 60245797 A2 19851205 Showa, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-100040 19840518.
AB An electroplating process is carried out in a nonaq. bath consisting of metal complexes .gtoreq.0.01, solute dissolving in nonaq. solvent 0.05-10%, and nonaq. solvent. The method enables electroplating of Ti, Zr, and noble metals. Thus, Ti was electroplated at +500 mV in a MeOH soln. contg. 10% maleic anhydride and 1% LiCl on a C steel. The metal complex is a Ti-maleic anhydride complex.
IT **75-05-8**, uses and miscellaneous
(electroplating from baths contg.)
RN 75-05-8 ZCA
CN Acetonitrile (8CI, 9CI) (CA INDEX NAME)



IT **102-71-6D**, metal complexes
(electroplating from nonaq. bath contg.)
RN 102-71-6 ZCA
CN Ethanol, 2,2',2''-nitrilotris- (9CI) (CA INDEX NAME)



IT **7440-02-0**, uses and miscellaneous
(electroplating of, from nonaq. bath)
RN 7440-02-0 ZCA
CN Nickel (8CI, 9CI) (CA INDEX NAME)

Ni

IT **75-05-8**, uses and miscellaneous
(electroplating from baths contg.)
IT **102-71-6D**, metal complexes
(electroplating from nonaq. bath contg.)
IT **7440-02-0**, uses and miscellaneous
(electroplating of, from nonaq. bath)